Comments on Petition RM-10867

Concerning Revision of the Part 97 Rules
governing the Amateur Radio Service

Introduction

I would like to write to convey my opposition to the Petition for Rule Making filed by the American Radio Relay League.

My opposition is based principally on these concerns:

1. The petition provides too many privileges at the introductory (referred to as "Novice") level, which has the affect of reducing the incentive to upgrade to the second (referred to as "General") level.

2. The licensing regime proposed by the petition fails to test for proficiency in the use of the Radiotelegraph Code at a level at which conducting on-the-air operation using that mode will be attractive to the license applicant.

Discussion of the Privileges Extended with the Introductory License

The privileges extended with the introductory license in the ARRL's petition are very generous indeed.

In the ARRL's petition, an introductory license class is described.

> 'The entry-level license should ensure that the potential licensee knows basic Commission rules, basic safety and electronics, and something about basic operating procedures. The entry-level license should offer only limited operating privileges: enough for the licensee to experience many facets of Amateur Radio, including nationwide and worldwide communications, but not so comprehensive a portfolio that the range of topics on which the entry-level examination candidate must be examined becomes so extensive and cumbersome that the license examination becomes daunting. The Technician Class license today meets neither criterion.'

In contrast to this, the privileges proposed to be extended to the Novice licensee include every emission type available in the Amateur Radio Service. The only differences between the Novice license and the higher license classes is in the frequency allocations alloted, the power levels permitted, and in the operation of repeaters or satellite stations. How a 25 question written element can adequately examine the applicant for proper station operation on every permitted emission type is a mystery. In the past, a 25 question written element was used to examine the Novice applicant for privileges that were limited to cw on HF, and, earlier, VHF phone.

Since a relatively small minority of amateur licensees operate repeaters or satellite stations, the privileges granted to the

introductory licensee seem to be much more than just an introductory taste of what Amateur Radio has to offer; it seems almost to give away the whole enchilada.

The current Novice/Technician Plus licensee is granted a total of 600 khz below 30 MHz; 200 khz of CW only privileges on the bands below 10 meters, and 200 khz each of CW/RTTY/data and CW/SSB phone on the 10 meter band.

In contrast, the new petition proposes that the introductory licensee be granted 625 khz of CW/Data privileges, and 500 khz of Voice/Image privileges. The new licensee is also granted all permitted amateur emissions types on the full 6 meter, 2 meter, and 70 centimeter bands.

Discussion of the Level of Radiotelegraph Code Proficiency Required

The discussion of the requirement for examination of proficiency in the use of the International Radiotelegraph Code (erroneously referred to as the Morse Code) in the League's Petition, indicates that the importance of the Radiotelegraph Code as an enabler for those who wish to undertake a program of learning about Radio Frequency Design by constructing their own Amateur Radio equipment is not well understood by the League.

Because the original Morse Code was developed in 1840, there is a perception that the mode is obsolete, and that it's adherents must be a peripatetic group of odd ducks with an interest in antique technologies. In fact, because it is much simpler to design and build transmitting apparatus for the Radiotelegraph Code than for voice or the digital modes, it is widely used by amateur radio operators who enjoy the construction and development of their own apparatus, and who truly want to comprehend how the radio frequency circuits in their equipment work. As an example of this, the only transceiver or transmitter project described in the 2003 edition of the ARRL Handbook for Radio Communications is the Norcal Sierra; a multi-band Radiotelegraph Code-only transceiver. No Single Sideband or Frequency Modulated transmitter or transceiver projects of any kind are described. As a second example, consider the text 'The Electronics of Radio' by David B. Rutledge, a professor of electrical engineering at the California Institute of Technology, where the book is used for an engineering undergraduate level textbook. The centerpiece of the text is the design of the Norcal 40A, a Radiotelegraph Code-only transceiver developed by the Northern California QRP Club. Within the space of this Radiotelegraph Code-only transceiver, all the Solid State Radio Frequency circuit design principles described in the text can be illustrated.

As well, it is important to consider that the bandwidth occupied by a radiotelegraph code signal is significantly narrower than that occupied by the popular voice modes. Operation with the Radiotelegraph Code therefore enables a larger number of licensees to participate in activity on the limited High Frequency allocations possessed by the Amateur Radio Service, while limiting congestion; a very important consideration for a service with nearly 700,000 licensees, in a frequency range in which both nationwide and worldwide communication

is possible. Use of, and proficiency in, the narrowest bandwidth modes, such as the International Radiotelegraph Code and PSK31, should be strongly encouraged, both in the license examination elements required, and in the operating privileges extended.

For this reason, for the highest class of Amateur Radio License, a useful level of proficiency in the International Radiotelegraph Code should be required of the applicant, both to put them in a good position to consider building some of their own apparatus, and to encourage their leadership behavior by making use of the most spectrum-efficient modes available in our portfolio of emission types. The 5 word per minute level completely fails to do this. At the 5 word per minute level, the licensee will find that participation in on-the-air contacts is painful and awkward, so most applicants will learn the Radiotelegraph Code to this level to gain the Amateur Extra class privileges extended, but will in all likelihood seldom engage in actual Radiotelegraph Code activity on the air, and will therefore not find the construction of homebrew apparatus for the mode to be an attractive undertaking. I suggest that a level of proficiency in the range of 12-16 words per minute would bring the Extra class applicant up to a mainstream level, at which participation in on-the-air traffic nets and casual operation will feel natural and enjoyable.

Summary

For these reasons, I feel that the ARRL has prepared a very poorly thought out petition for rulemaking. As a Life Member of the American Radio Relay League, this is very disappointing to me. I think that the Petition for Rulemaking, designated RM-10811, submitted by the Fists CW Club, presents a more comprehensively thought out and attractive vision for the future of the licensing regime for the Amateur Radio Service, although I am not now and never have been a member of that organization.

Respectfully Submitted,

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